QJM: An International Journal of Medicine, 2020, 429

doi: 10.1093/qjmed/hcz244
Advance Access Publication Date: 4 October 2019
Clinical picture

CLINICAL PICTURE

Flower cells in patient with HTLV1 associated adult T-cell leukaemia/lymphoma

A previously well, 33-year-old African gentleman, was brought in by his family with a 2-week history of progressive confusion. He was clinically dehydrated, but otherwise examined well. The patient importantly, was not pale and had no clinically evident lymphadenopathy or hepatosplenomegaly and no skin lesions were noted. There was no evidence of meningism and nil else to explain the confusion. Chest radiography showed evidence of bilateral hilar lymphadenopathy. Laboratory testing revealed marked hypercalcaemia (4.76 mmol/l with appropriately low levels of PTH) with renal dysfunction in a pre-renal picture (Urea 19.1 mmol/l; Creatinine 223 μmol/l) and an elevated lactate dehydrogenase (652 u/l). Initial confusion and hypercalcaemia responded to forced saline diuresis and bisphosphonate therapy. Full blood count revealed a leucocytosis of 28.4 x 10^9 cells/l with a significant eosinophilia (9.54 x 10^9 cells/l). The peripheral blood smear, in addition to the eosinophilia revealed a population of medium to large, mature atypical lymphocytes which demonstrated marked nuclear irregularity with petal shaped nuclei resembling 'flower-shape' nuclei (Figure 1). Immunophenotyping was in keeping with a mature T cell lympho-proliferative disorder (CD2+; CD3+; CD4+; CD7–; CD8– and CD25+). Bone marrow aspirate revealed a hypercellular marrow with diffuse infiltration of atypical cells. Human T-lymphotropic virus 1 (HTLV-1) testing was positive. In light of above findings, a diagnosis HTLV-1 associated adult T-cell leukaemia/lymphoma (ATLL) was made. Patient responded well to chemotherapy with improvement of peripheral counts. Flower cells as described above are typically described in patients with HTLV-1 induced ATLL. They may also rarely be seen in asymptomatic carriers of HTLV-1.

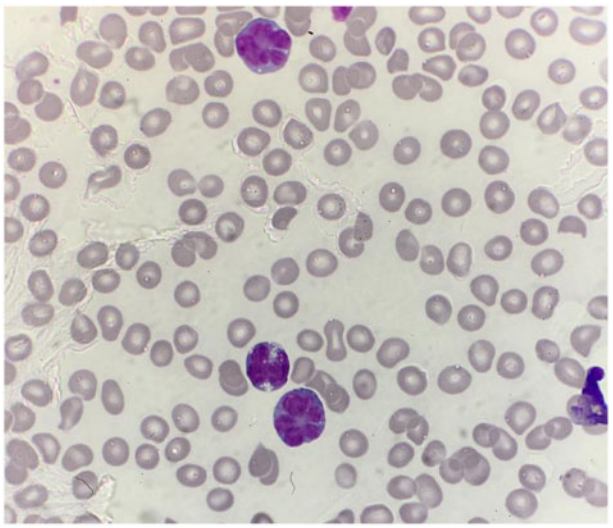

Figure 1. Flower cells of HTLV-1 induced ATLL.

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Conflict of interest. None declared.